India’s Approach towards building Digital Public Infrastructure

**01 Public Good**
- Large citizen scale public platforms (Aadhaar, NPCI, COWIN)
- Not for profit Institution
- Protect from Private Interest and misuse of data

**02 Deep Tech**
- AI, advanced open source, Cloud Ready
- Billion a Day Architecture
- Low cost, asset-lite, high-speed payments

**03 Ecosystem Builder**
- Innovation led Government and Regulatory Policies
- Support entrepreneurial ecosystems
- Ecosystem led local Innovation
RBI and GOI > Objective to Digitize Indian Citizens

Key Challenges

01 Unreliable Network
02 Limited Digital Literacy
03 Language Barriers
04 Low Trust

Success indicators

Key Drivers

Development

Society

Polity

Economy

Accessibility towards

1.4 Billion Population

Payments

Insurance

Credit

Savings & investments

GDP

Purchase power parity

Participation
UPI playing central role amongst DPI’s in India with globalization aspiration

**USP’s of UPI**

- Robust engine powered by world class Technology
- Interoperable and cost-efficient platform
- Open banking themed - Safe, secure and simple
- Multiple use cases (P2P and P2M) thru Alias and QR
- Unique and inclusive model driven through Ecosystem Collaboration

UPI’s contribution to digital transformation in India is well acknowledged.

UPI has truly transformed the digital payment landscape in India.
UPI ECOSYSTEM and its critical success factors

- **99.99% Uptime**
- **Universal acceptance**
- **New App enabler**
- **New Channel enabler**
- **User Interface with UPI features**

UPI ecosystem is well governed by Reserve Bank of India.
UPI Unique Features

- Payment Identifier
  - UPI ID
  - Bank A/C number
  - Mobile number

- Distribution Model
  - Bank Apps
  - Third party Apps

- Acceptance
  - Individual/Merchants via
    - QR
    - Mobile Number
    - UPI ID
    - Tap n Pay

- Channels
  - IVR/Voice
  - Mobile Application
  - Web

- Programmable
  - Mandate via Autopay
  - Risk Rules for On device UPI Wallet (Lite)

- Source of Funds
  - PPI Wallets
  - RUPAY Credit Card
  - CBDC
  - Credit Line
  - E-RUPI
  - Current / Saving Bank accounts
One platform – Multi-Channel and Multi-Source of funds

Unified Payments Interface Platform

- Savings Account
- Credit Line
- Over Draft Account
- RuPay Card
- PPI Wallets
- CBDC
- Lite Wallet

Platform Approach

- Any Channel initiation
- UPI APIs
- Any Source of Funds
It’s all about numbers

- 10.5 Billion/month
- ₹ 15.76 Trillion
- 185 Billion API Hits
- ~6.2 Billion API Hits calls per Day
- <100 ms latency

Total Txns
Total Value
System Capacity
Next phase of Growth

Conversational Payments
- AI model for conversation payment in multiple Indian Languages
- Mandate for recurring payments
- Subscriptions, OTT, lending, utility payments etc
- Potential to create 1 billion mandate

Credit
- Easy access to loans for untapped segments using Bank issued Credit Line
- Faster and convenient payments by linking RuPAY credit cards on UPI
- Multiple use cases (Scholarship, subsidies)
- Only mobile phone and e-voucher required

AutoPay

E-Rupi

UPI Tap n Pay
- NFC enabled payments
- Online and Offline Tap based smart phone payments (NFC enabled and UPI tag)
- Smart QR sticker with NFC tag

Single Factor
- Low ticket Payments
- Online and Offline Tap
- Reduce load of Core Banking System
- Frictionless offline payments

UPI LiteX
## Globalization

### Cross Border Payments

**Merchant Payments (P2M)**

- **UPI**
  - Push transaction (where customer knows merchant’s UPI ID or scans the QR)
  - Conversion rates (in-built DCC)

- **RuPay**
  - RuPay Cards issued in India and accepted outside (Singapore, UAE)
  - RuPay Cards issued outside India and accepted in India (Bhutan, Mauritius)

### Cross Border Remittances

**Payments to Individuals (P2P)**

- **UPI Direct Platform**
  - Two countries RTP rails connect
  - Adherence to G20 principles:
    a) Accessibility
    b) Transparency
    c) Real Time
    d) Costs below 3%
  - Transaction with all compliances <30 sec
  - Customer using App and inter alia

### Global – RuPay & UPI

#### Infrastructure Build

- Build efficient domestic payments at lower cost of operations

#### Additional value added stack

- Analytics
- Backoffice
  - Clearing, Settlement and Dispute Management
  - Interchange and Fees

#### AI Backed FRM

- Real & near real time alerts based on the rules defined in system
- Score based inputs which equips member banks to carry out enhanced due diligence based on AI.
Thank You